

552,786

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number  
**WO 2004/087912 A1**

(51) International Patent Classification<sup>7</sup>: **C12N 15/09**,  
15/15, C12P 21/02, A61K 37/64, C12N 9/64

(21) International Application Number:  
PCT/IB2004/001040

(22) International Filing Date: 5 April 2004 (05.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/460,345 4 April 2003 (04.04.2003) US

(71) Applicant (for all designated States except US): **UNI-  
VERSITÉ DE LAUSANNE [CH/CH]**; Rue du Bugnon  
21, CH-1005 Lausanne (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DEPERTHES**,  
David [FR/CH]; 15a Chemin de Varmey, CH-1299  
Crans-pres-Celigny (CH). **CLOUTIER**, Sylvain  
[CA/CH]; 63 Chemin de Boissonnet, CH-1010 Lau-  
sanne (CH).

(74) Agent: **KATZAROV S.A.**; 19, rue des Epinettes,  
CH-1227 Genève (CH).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-  
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,  
GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG).

**Declaration under Rule 4.17:**

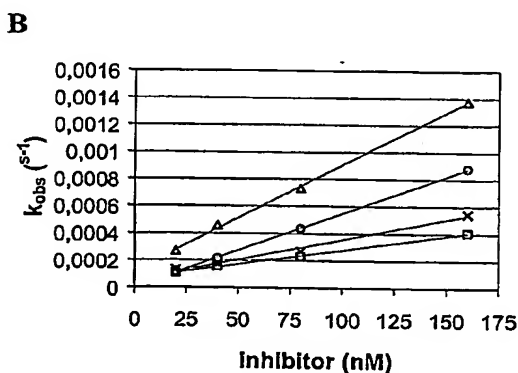
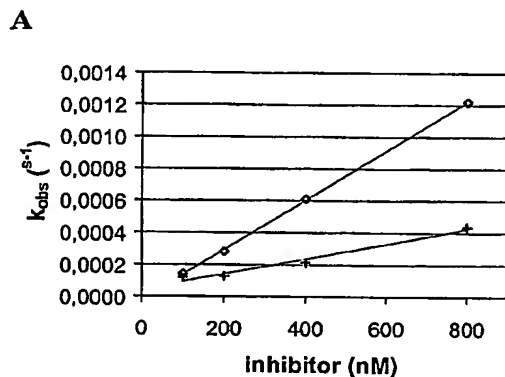
— of inventorship (Rule 4.17(iv)) for US only

**Published:**

— with international search report  
— before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: **INHIBITOR PROTEINS OF A PROTEASE AND USE THEREOF**



(57) Abstract: The present invention relates to a chimeric inhibitor protein of a protease comprising an inhibiting polypeptidic sequence and at least one polypeptidic sequence of a substrate-enzyme interaction site specific for a protease. Other objects of the invention are to provide a purified and isolated DNA sequence encoding the chimeric inhibitor protein of a protease, an expression vector characterized in that it comprises said purified and isolated DNA sequence, a eukaryotic or prokaryotic host cell transformed with this expression vector and a method of producing a chimeric inhibitor protein.

WO 2004/087912 A1